BARRANJOEY HEAD LIGHTHOUSE

Federal Department of Transport

The first report of a light having been exhibited at Barranjoey Head dates back to 1855, but records are vague as to its description. However, it is evident that some form of navigation guidance was needed, as Broken Bay was becoming a port of some consequence. Among the first of many ships wrecked in the vicinity of the bay was the schooner "Endeavour" in 1825. Three lives were lost in the wreck of the ketch "Traveller" in 1868, and as late as 1898 a further wreck occurred with the brig "Minora" going down with the loss of six lives. During these early years of the bay's use as a port, a stone jetty was constructed, and a number of buildings to house Customs, cargo, etc. It eventually became necessary to improve communications with Sydney, so a telegraph line was erected, connecting with the main line at Pymble. The naming of Telegraph Road in Pymble records this event in Barranjoey's history.

In 1868, the Colonial Government of NSW decided a permanent marine light should be erected on Barranjoey Head, and chose the present site. The matter was apparently considered urgent, as orders were given for a temporary navigation aid to be erected. This took the form of a pair of wooden towers bearing temporary lights, which were erected that same year, being first shown in August. They were named the Stewart Towers, after the then Member for East Sydney, who was active in having the construction of the lights authorised.

A conference was held in Sydney in 1873, at which the principal officers of the Marine Departments of each of the Australian Colonial Governments recommended that a single lighthouse be erected to replace the wooden towers.

Plans were drawn in 1874 by Mr. James Barnett, the Colonial Architect, who was responsible for the design of several other lighthouses during his office, and such other well known buildings as the Berrima Court House and Gaol. Tenders for the work were not invited until four years later, and in 1879 the work was contracted by Mr. Isaac Banks, the construction to be of Hawkesbury sandstone.

The ceremony of laying the corner stone was performed on Thursday, 15 April 1880, by Miss Rosa Barnett, daughter of the Colonial Architect, and there was quite a large number of people to witness the proceedings. According to the 'Sydney Morning Herald' edition of 17 April, these people had made an adventurous journey, leaving Sydney at 7 am, travelling over a very rough bush track from Manly to Pittwater, and finally by steamer from there to Barranjoey jetty, arriving at 1 p.m. Further excitement was in store for them with the trip from the jetty to the lighthouse site by means of the works trolley tramline. Today's visitors may well imagine how steep this line must have been.

A bottle was placed under the foundation stone, containing a paper listing the names of the Governor and his Vice Regal staff, the names of Members of both Houses of Parliament, a report of the proceedings of the Marine Board Conference on Lighthouses, a report of the laying of the foundation stone for Macquarie Lighthouse, a copy of Moore's Almanac, "Sydney Morning Herald', 'Sydney Mail', 'Echo', 'Evening News', 'Town and Country Journal', 'Sydney Punch', Daily Telegraph', Illustrated Sydney News', a report of the Shipwreck Relief Society, a medallion of Queen Victoria and several coins of the realm. The report of the day's proceedings did not describe the size of the bottle.

The stone tower stands 11½ metres high, with the lantern room and dome adding a further 8¼ metres to its overall height. Its simplicity in design and balanced proportions were typical of the designs which James Barnett left for the benefit of future generations. It took twelve months to complete the construction, stone and other materials being hauled from the jetty to the plateau by means of the trolley. Two of the construction workers were to lose their lives during the year, George Cobb by drowning, and William Stark, a blacksmith, as the result of an accident. Mr. Banks, the contracting stonemason, also happened to be an undertaker, and saw to the burial of his workmen at St. John the Baptist Church at Pittwater. The foreman stonemason was Mr. John Kelly, and Mr. W. S. V. Spencer the Clerk of Works. Mr. Kelly had to leave the job in December 1880 to supervise the construction of Montague Island Lighthouse, his place being taken by Mr. Archibald Murray. The optical equipment, still in use today, was supplied by Messrs. Chance Bros. of Birmingham. The lighthouse was completed on 20 July 1881 and the light first exhibited on 1 August 1881. The original light was a fixed red dioptric of 700 candlepower, with four oil wick burners.

Further misfortune was to occur at the site on 25 June 1885 when one of the earlier lightkeepers, 71 years old George Mulhall, was struck dead by lightning, his remains being laid to rest in the grave nearby. His widow was to survive him by only a year, and was buried beside her husband.

The light underwent several improvements over the years, and on 6 August 1932 it was converted to automatic operation and the three lightkeepers withdrawn. At that time, it was changed to a group flashing white light of 6,000 candlepower, illuminated by acetylene gas. Shortly after, the original Visitors' Book was presented to the Manly Warringah Historical Society. On 29 November 1972 the light was converted to its present electric operation by connection to the mains power supply, and its output raised to 75,000 candelas.

To distinguish it from neighbouring lights, Barranjoey flashes four white flashes of one second duration for each flash, every 20 seconds. The light source is from a single 1,000 watt tungsten halogen lamp which is replaced every 30 months. Should the lamp fail, a spare lamp automatically rotates into position and provides illumination in a few seconds. Should the mains power supply fail, power is generated by the standby diesel driven alternator, its start-up being effected automatically.

The light source has an elevation of 113 metres above sea level, which gives it a geographical range of 26 nautical miles. Its nominal range (that is, its luminous range with a meteorological visibility of 10 nautical miles) is 19 nautical miles.

The Australian Public is fortunate in having a legacy of soundly constructed marine navigation aids, many of which were financed by the Colonial Government of the day. The Lighthouses Act of 1911 transferred responsibility for coastal lights to the Commonwealth and, for those within harbours and estuaries, to the States. In N.S.W. for instance, the latter are administered by the Maritime Services Board and the Department of Transport is responsible for coastal lights, such as Macquarie Light.

The Federal Department of Transport is responsible for assisting in the development and implementation of the Federal Government's surface transport programmes and policies. These cover shipping, road and rail transport and safety. Responsibilities administered are within the Transport Portfolio by the Department of Transport, the Australian National Line and the Australian National Railways Commission within the Transport Portfolio.

As part of its maritime activities, the Department is responsible for the operation and maintenance of 349 visual navigation aids, 11 radio beacons, 1 Decca navigator chain, 2 tide gauges, 15 radar transponders and 1 Omega facility. Essentially, the network is provided to meet the requirements of commercial shipping for safe and economic navigation in Australian coastal waters. The Department aims to achieve a high standard of reliability and performance with each of its navigation aids, and to carry out its activities in a cost effective manner.

Finance for operating and maintaining the lighthouses is paid by light dues collected from the shipping industry, most of which is foreign owned. Thus the lights are operated at little or no cost to the public.

The lights are powered by various means such as diesel driven alternators, batteries, mains electricity, or solar power depending on their location.

The process of automation of lightstations began in World War 1 and is continuing gradually. However, far from being an antiquated aid in these days of sophisticated navigational devices, lighthouses are a basic navigation aid which will continue to serve a useful purpose for many years to come, as confirmed by the steadily increasing numbers on the international lists.

LOCATION: 33° 35′ SOUTH 151° 20′ EAST